Name

Class

Date



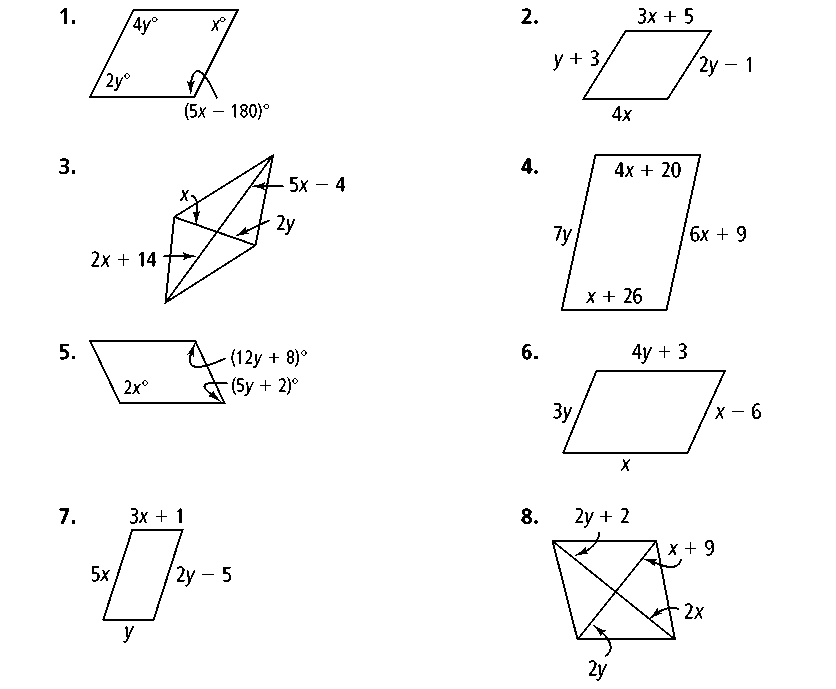
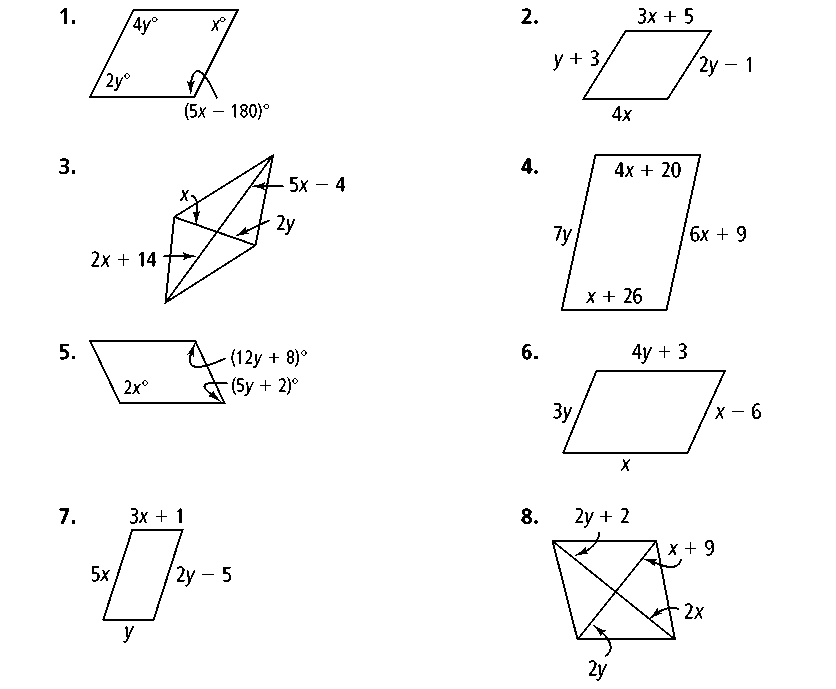
Proving That a Quadrilateral Is a Parallelogram

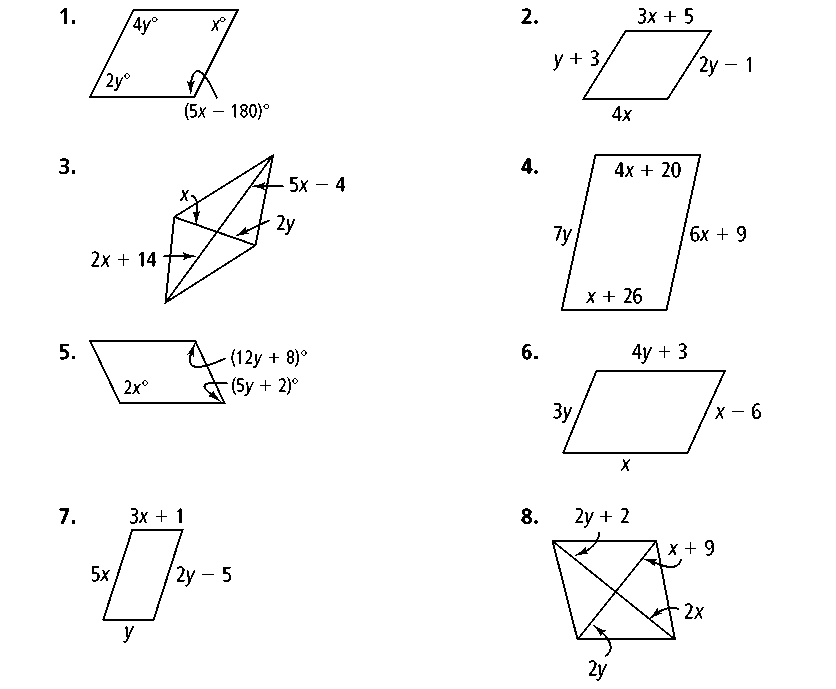
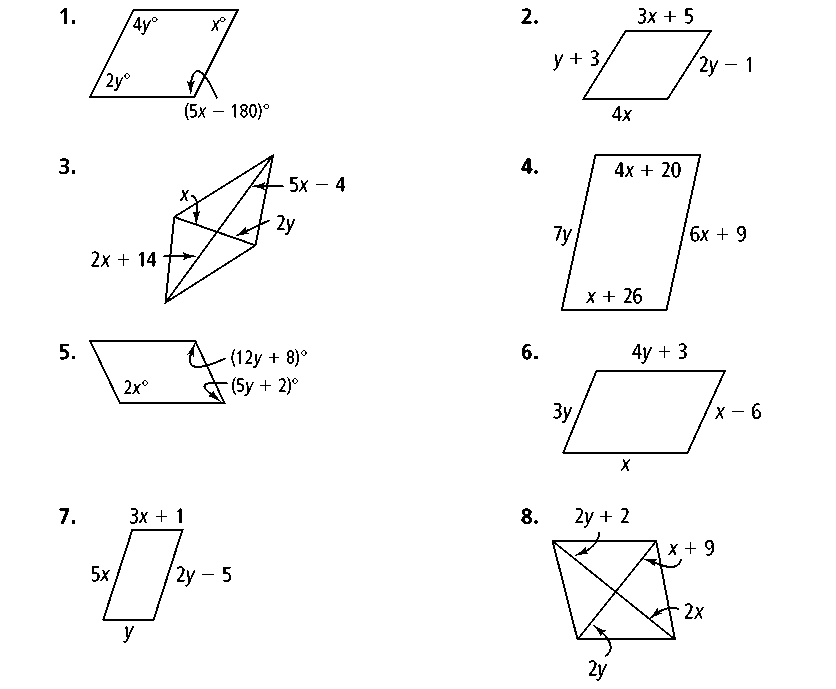
6-3

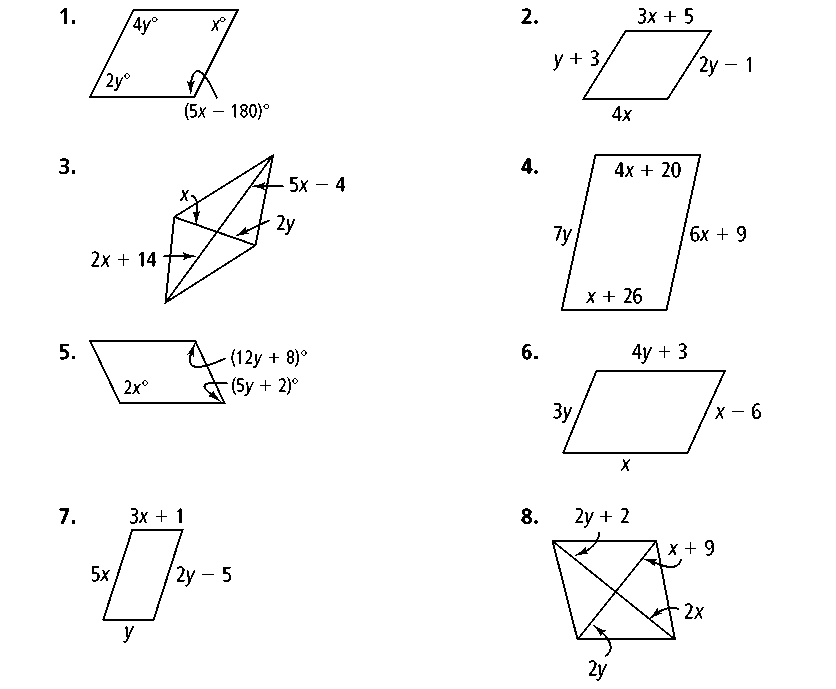
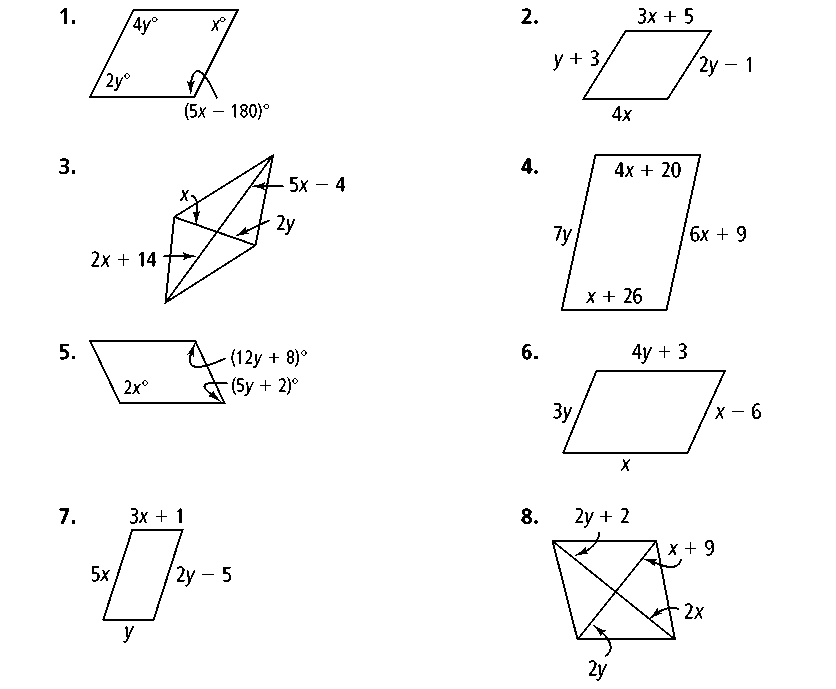
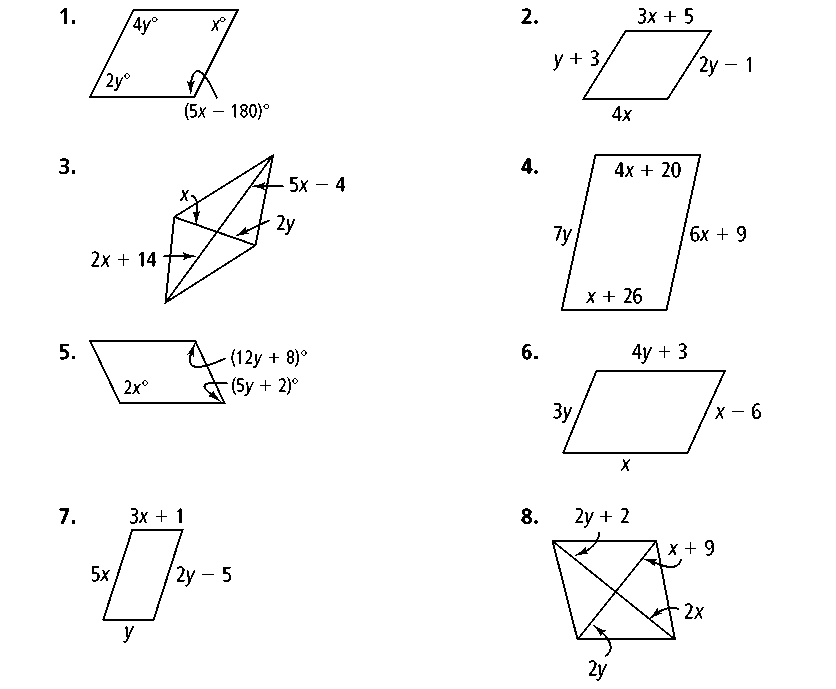
**Practice**

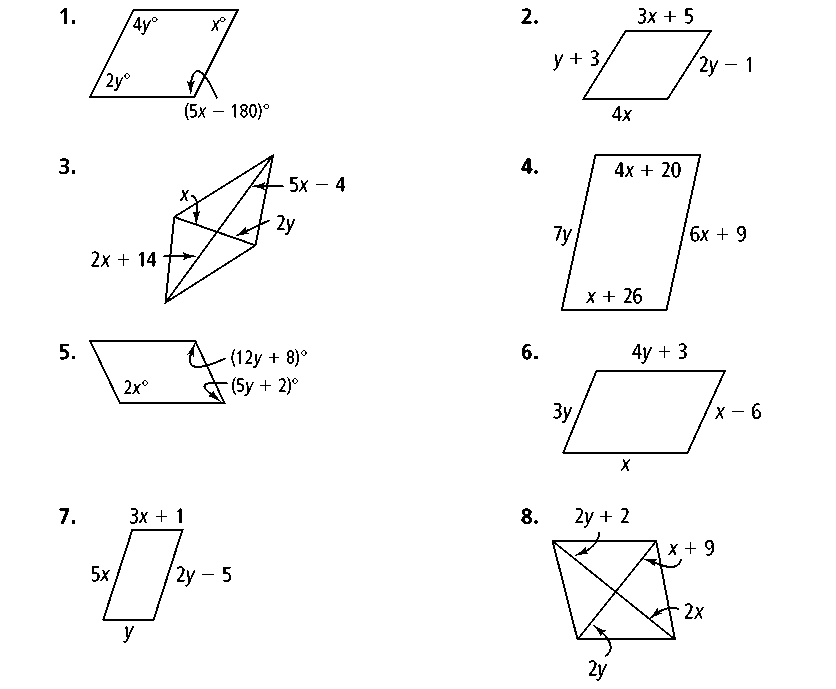
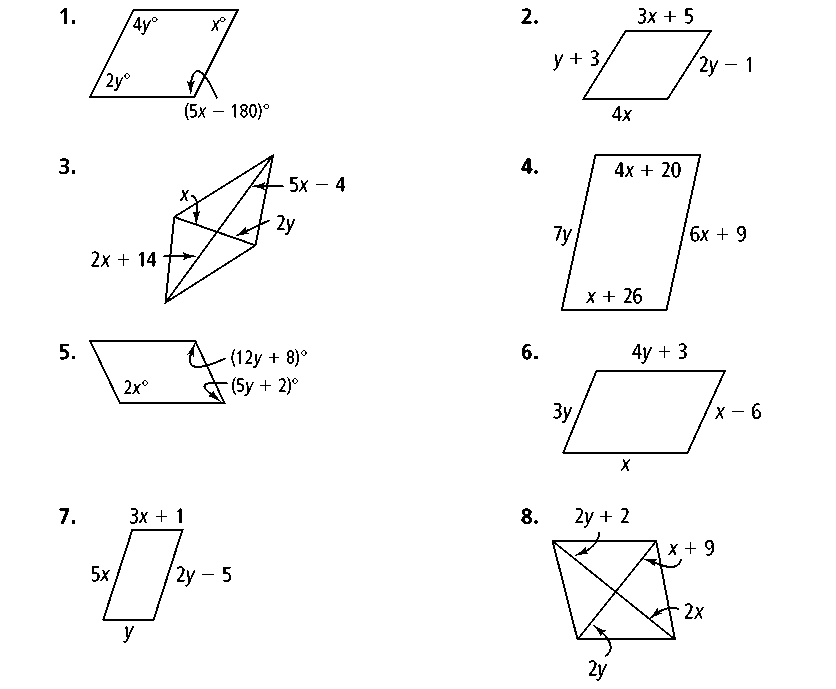
*Form G*

**Algebra For what values of *x* and *y* must each figure be a parallelogram?**

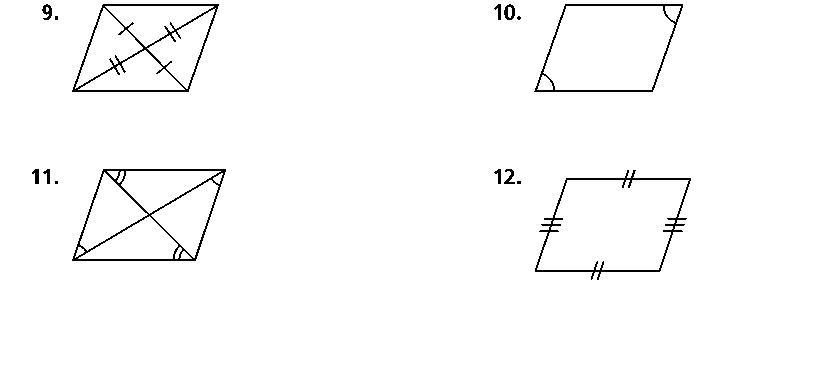
** 1. 2.**

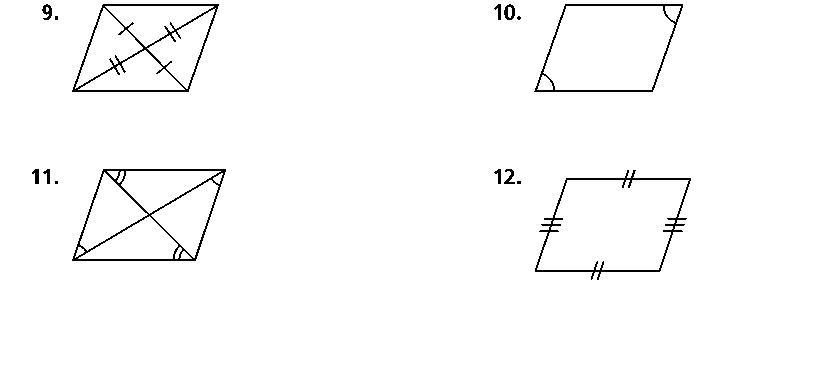
**3. 4.**

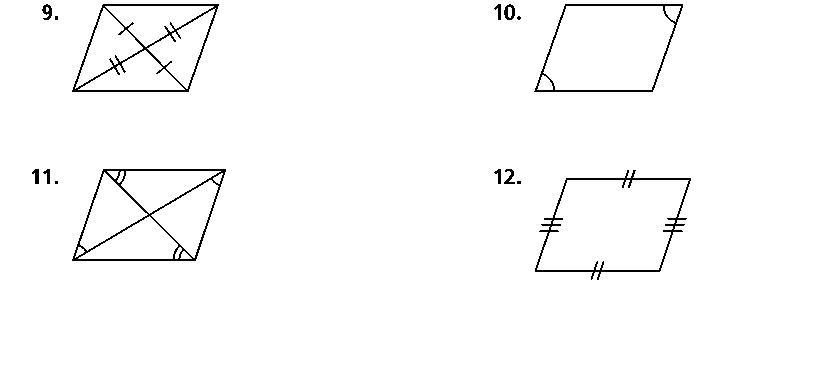
**5. 6.** 

**7. 8.**

**Can you prove that the quadrilateral is a parallelogram based on the given information? Explain.**

 **9. 10.**

****

**11.**

Name

Class

Date

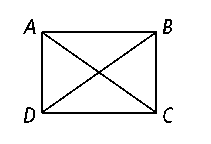


Proving That a Quadrilateral Is a Parallelogram

6-3

**Practice** (continued)

*Form G*

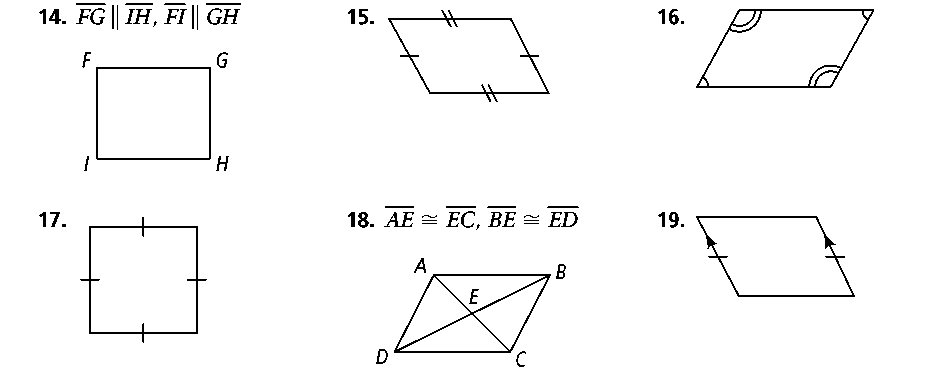
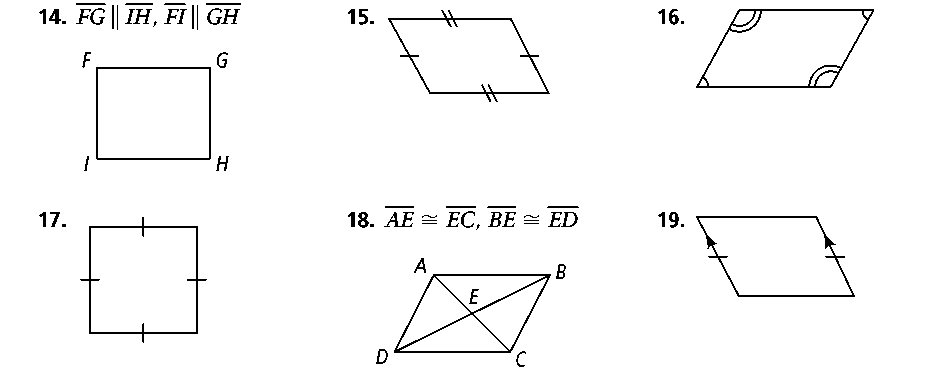
**12. Developing Proof** Complete the two-column proof. Remember, a rectangle is a parallelogram with four right angles.

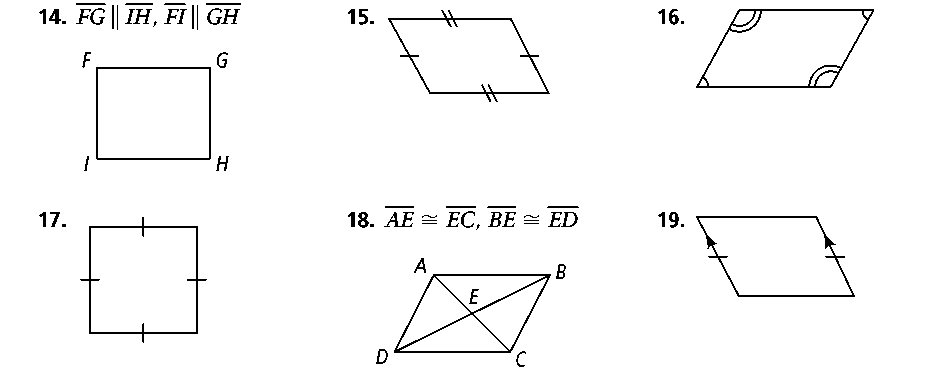
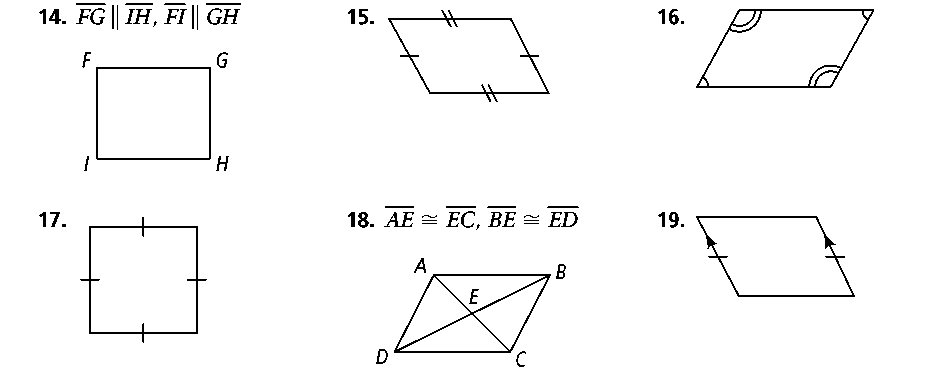
**Given:** *ABCD,* with 

**Prove:** *ABCD* is a rectangle.

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
| **1)** *ABCD,* with  ***2)***  **3)**  **4)**  **5)** ∠*ADC* and *∠BCD* are supplementary.  **6)** *∠ADC* ***≅ ∠****BCD*  **7)**  **8)** *∠DAB* and *∠CBA* are right angles.  **9)** | **1)** Given  **2)** Opposite sides of a are congruent.  **3)**  **4)** SSS  **5)**  **6)** CPCTC  **7)** Congruent supplementary angles are right angles.  **8)**  **9)** Definition of a rectangle |

**Can you prove that the quadrilateral is a parallelogram based on the given information? Explain.**

 **13. 14.**

**15. 16.**

**17. Error Analysis** It is given that  and *,* where *MNOP* and *TQRS* are *parallelograms*. A student has said that if those statements are true, then ***MNOP* ≅ *TQRS****.* Why is this student incorrect?